In the Claims

Kindly amend the claims, without prejudice, as follows:

1. (Original) Ester-group-cleaving enzyme obtainable by culturing the microorganism Thermomonospora fusca in a suitable nutrient medium, optionally in the presence of an inducer.

2. (Original) Ester-group-cleaving enzyme according to claim 1, the microorganism being a Thermomonospora fusca strain that has been deposited with the Deutschen Sammlung für Mikroorganismen [German Collection of Microorganisms] under the number DSM 43793.

3. (Previously Presented) Ester-group-cleaving enzyme according to claim 1, the enzyme being isolated from the nutrient medium by obtaining an enzyme-containing culture supernatant from the nutrient medium, which supernatant may optionally be concentrated, and

purifying the enzyme by chromatography, especially by ion exchange chromatography and/or hydrophobic interaction chromatography.

4. (Previously Presented) Ester-group-cleaving enzyme according to claim 1, the enzyme being characterised by the following parameters:

molecular weight: 27400 d (determined by SDS gel electrophoresis) or 28200 d (calculated on the basis of the amino acid sequence),

temperature optimum/range: 65°C (30-80°C),

temperature stability: 70°C/30 min,

pH optimum/range: 6-7 (4- >8),

isoelectric point: 6.4.

5. (Currently Amended) An [[E]]ester-group-cleaving enzyme according to claim 1, wherein the enzyme has the amino acid sequence of SEQ ID NO: 1 ~~characterised by the following amino acid sequence:~~

~~ANPYERGPNP TDALLEASSG PFSVSEENVS RLSASGFGGG~~
~~TIYYPREN NTYGAVAISP GYTGTEASIA WLGERIASHG~~
~~FVVITIDTIT TLDQPDSRAE QLNAALNHMI NRASSTVRSR~~
~~IDSSRLAVMG HSMGGGGTLR LASQRPDLKA AIPLTPWHLN~~
~~KNWSSVTVPT LIIGADLDTI APVATHAKPF YNSLPSSISK~~
~~AYLELDGATH FAPNIPNKII GKYSVAWLKR FVDNDTRYTQ~~
~~FLCPGPRDGL FGEVEEYRST CPF~~

or

~~mutations~~ wherein the enzyme is a mutant or derivative of SEQ ID NO: 1 resulting from substitution, insertion or deletion of amino acids of SEQ ID NO: 1, and wherein said mutant or derivative has ester-group-cleaving enzyme activity ~~which mutations cleave ester groups of polyesters (isofunctional enzymes)~~.

6. (Original) Synthetic peptide or protein having the amino acid sequence of the ester-group-cleaving enzyme according to claim 5 or a part of the sequence thereof.

7. (Previously Presented) Polyclonal antibody directed specifically against an ester-cleaving enzyme according to claim 1 or against a synthetic peptide or protein.

8. (Previously Presented) Monoclonal antibody directed specifically against an ester-cleaving enzyme according to claim 1 or against a synthetic peptide or protein.

9. (Original) Hybridoma cell that produces a monoclonal antibody according to claim 8.

10. (Previously Presented) Ester-group-cleaving composition that comprises an ester-group-cleaving enzyme according to claim 1 and/or a synthetic peptide or protein and optionally additional enzymes, stabilisers, suitable surface-active substances and/or suitable organic solvents.

11. (Original) Ester-group-cleaving composition according to claim 10, wherein the additional enzymes are hydrolases, especially esterases, proteases, cutinases, lipases, phospholipases and lysophospholipases.

12. (Original) Ester-group-cleaving composition according to claim 11, wherein the hydrolases originate from microorganisms selected from Pseudomonas sp., Rizomucor miehei, Candida cylindracea, Candida antartica, Aspergillus niger, Chromobacterium viscosum, Commamonas acidovorans, Rhizopus arrhizus and Rhizopus delamar.

13. (Previously Presented) Use of an ester-group-cleaving enzyme according to claim 1 or of a synthetic peptide or protein or of an ester-group-cleaving composition for the degradation of ester-group-containing low molecular weight and/or macromolecular synthetic or natural compounds.

14. (Original) Use according to claim 13, wherein the ester-group-containing macromolecular compounds are aliphatic, cycloaliphatic, aliphatic-aromatic, partially aromatic or aromatic polyesters or copolyesters, polyesteramides, polyestercarbonates or polyesterurethanes, the chain of which may be extended and which may be branched or crosslinked.

15. (Original) Use according to claim 14, wherein the ester-group-containing macromolecular compounds form copolymers, mixtures and blends, composites, laminates or adhesive bonds with other materials.

16. (New) A genetically modified microorganism producing, in culture, a protein having the amino acid sequence of SEQ ID NO 1.

17. (New) A genetically modified microorganism according to claim 16 wherein the microorganism is a *Thermomonospora fusca* strain.